

What is claimed is:

1. An apparatus for facilitating the creation of holes in a blow-molded container, comprising:

a mold comprising first and second mold portions that, when located adjacent each other along a seam, at least partially enclose a reservoir cavity against which a wall of the blow-molded container is blown during blow molding;

wherein said first and second mold portions have respective first and second gaps therein that, when said first and second mold portions are located adjacent each other, form a hole in said mold that intersects the seam;

a first punch that, when in a first position, is disposed within the first gap; and

a second punch that, when in a first position, is disposed within the second gap;

wherein, when said first and second mold portions are located adjacent each other, said first punch is located adjacent said second punch such that, when said first and second punches are in a second position, at least part of each of said punches is extended past the wall of the blow molded container and inside the reservoir cavity such that said punches collectively create one hole in the wall of the blow molded container.

2. The apparatus of claim 1, wherein said first punch has a rounded edge that is disposed in the first gap when in the first position, said second punch has a rounded edge that is disposed in the second gap when in the first position, and each of said punches has a straight edge that is adjacent the straight edge of the other punch when said first and second mold portions are located adjacent each other.

3. The apparatus of claim 1, wherein:

said first punch includes at least one bushing; and

said second punch includes at least one pin disposed in said at least one bushing when said first and second mold portions are located adjacent each other.

4. The apparatus of claim 1, wherein each of said first and second punches has a recess therein for receiving flash when said first and second mold portions are moved adjacent each other.

5. The apparatus of claim 1, wherein at least one of said first and second punches includes at least one vertical pin adapted to be inserted into a vertical bushing.

6. The apparatus of claim 1, further comprising a first actuator adapted to advance said first punch through the wall of the blow molded container and a second actuator adapted to advance said second punch through the wall of the blow molded container.

7. The apparatus of claim 6, wherein said first and second actuators are hydraulic actuators.

8. The apparatus of claim 1, wherein:

said first and second mold portions, when located adjacent each other, at least partially enclose a handle cavity; and

the hole formed by the first and second gaps intersects a vertical plane of the handle cavity.

9. The apparatus of claim 8, wherein said first and second mold portions, when located adjacent other, at least partially enclose a spout cavity having a first end, in fluid communication with the reservoir cavity, and a second end.

10. The apparatus of claim 9, further comprising a third mold portion located at the second end of the spout cavity, said third mold portion having a surface that intersects a vertical plane of the spout cavity and against which the wall of the blow molded container is blown during blow molding.

11. The apparatus of claim 10, wherein the third mold portion includes at least one pin adapted to create a hole in the wall on the blow molded container.

12. The apparatus of claim 10, wherein the surface of the third mold portion is concave in order to form a convex surface on the blow molded container.

13. The apparatus of claim 10, further comprising:

an outer housing mounted to said first mold portion and adjacent the second end of the spout cavity;

an inner housing disposed in said outer housing;

wherein said third mold portion is affixed to said inner housing, said third mold portion having a plurality of holes therein;

a die disposed in said inner housing, said die having a plurality of pins protruding therefrom;

a housing actuator disposed in said outer housing adapted to move said inner housing within said outer housing when said first mold portion is moved adjacent to said second mold portion so that the wall of the blow molded container can be blown against the surface of the third mold portion during blow molding; and

a die actuator disposed in said inner housing adapted to move said die within said inner housing and cause said plurality of pins to move through the plurality of holes in the third mold portion to create a plurality of holes in the wall of the blow molded container.

14. The apparatus of claim 13, wherein the surface of the plate is concave in order to form a convex surface on the blow molded container.

15. An apparatus for facilitating the creation of holes in a blow molded container, comprising:

a mold comprising first and second mold portions that, when located adjacent each other along a seam, at least partially enclose a cavity against which the wall of the blow molded container is blown during blow molding;

wherein, said first and second mold portions have respective first and second gaps therein that, when said first and second mold portions are located adjacent each other, form a hole that intersects the seam; and

a third mold portion that covers the hole when located adjacent thereto, said third mold portion having a surface against which the wall of the blow molded container is blown during blow molding;

wherein said third mold portion includes at least one pin adapted to create a hole in the wall of the blow molded container.

16. The apparatus of claim 15, wherein the surface is concave in order to form a convex surface on the blow molded container

17. An apparatus for facilitating the creation of holes in a blow molded container, comprising:

a mold comprising first and second mold portions that, when located adjacent each other along a seam, at least partially enclose a spout cavity and a reservoir cavity, against which the wall of the blow molded container is blown during blow molding;

wherein, the spout cavity has a first end, in fluid communication with the reservoir cavity, and a second end;

wherein, said first and second mold portions have respective first and second gaps therein that, when said first and second mold portions are located adjacent each other, form a hole that intersects the seam; and

a third mold portion that covers the hole when located adjacent thereto, said third mold portion having a surface against which the wall of the blow molded container is blown during blow molding;

wherein, said third mold portion is located adjacent the second end of the spout cavity when said third mold portion is located adjacent the hole.

18. The apparatus of claim 17, wherein the surface intersects a vertical plane of the spout cavity.

19. The apparatus of claim 17, wherein the surface is concave in order to form a convex surface on the blow molded container.

20. The apparatus of claim 17, wherein the third mold portion includes at least one pin adapted to create a hole in the wall of the blow molded container.

21. The apparatus of claim 17, further comprising:

- an outer housing mounted to said first mold portion and adjacent the second end of the spout cavity;

- an inner housing disposed in said outer housing;

- wherein said third mold portion is affixed to said inner housing, said third mold portion having a plurality of holes therein;

- a die disposed in said inner housing, said die having a plurality of pins protruding therefrom;

- a housing actuator disposed in said outer housing adapted to move said inner housing within said outer housing when said first mold portion is moved adjacent to said second mold portion so that the wall of the blow molded container can be blown against the surface of the third mold portion during blow molding; and

- a die actuator disposed in said inner housing adapted to move said die within said inner housing and cause said plurality of pins to move through the plurality of holes in the third mold portion to create a plurality of holes in the wall of the blow molded container.

22. The apparatus of claim 17, wherein said first and second mold portions at least partially enclose a handle cavity when located adjacent each other.

23. An apparatus for facilitating the creation of holes in a blow molded container blown in a mold having first and second mold portions, comprising:

an outer housing adapted to be mounted to at least one of the mold portions;

an inner housing disposed in said outer housing;

a wall member affixed to said inner housing, said wall member having a molding surface and a plurality of holes therein;

a die disposed in said inner housing, said die having a plurality of pins protruding therefrom;

a housing actuator disposed in said outer housing adapted to move said inner housing within said outer housing when the first and second mold portions are moved adjacent each other so that the wall of the blow molded container can be blown against the molding surface during blow molding; and

a die actuator disposed in said inner housing adapted to move said die within said inner housing and cause said plurality of pins to move through the plurality of holes in the wall member to create a plurality of holes in the wall of the blow molded container.

24. The apparatus of claim 23, wherein the molding surface is concave in order to form a convex surface on the blow molded container.

25. A method of facilitating the creation of holes in a blow-molded container, comprising the steps of:

moving a first mold portion adjacent to a second mold portion along a seam, thereby at least partially enclosing a reservoir cavity and a handle cavity;

blowing a wall of the blow molded container against the reservoir cavity and the handle cavity;

simultaneously extending at least part of adjacent first and second punches, which are disposed in a hole intersecting the seam, through the wall of the blow molded container and into the reservoir container such that said punches collectively create one hole in the wall of the blow molded container.

26. The method of claim 25, wherein the punches create a hole that intersects a vertical plane of the handle.

27. A method of facilitating the creation of holes in a blow-molded container, comprising the steps of:

moving a first mold portion adjacent to a second mold portion along a seam, thereby at least partially enclosing a reservoir cavity and a spout cavity;

moving a third mold portion adjacent to a hole intersecting the seam at one end of the spout cavity such that a molding surface of the third mold portion covers the hole; and

blowing a wall of the blow molded container against the reservoir cavity, spout cavity, and molding surface.

28. The method of claim 27, further comprising the step of extending at least one pin through the molding surface to create at least one hole in the wall of the blow molded container.

29. A blow-molded watering can, comprising:

a reservoir portion;

a handle portion integrally formed with said reservoir portion;

a spout portion integrally formed with said reservoir portion; and

a rose portion integrally formed with said spout portion.

30. The watering can of claim 29, wherein said rose has a plurality of punched holes.

31. A blow-molded watering can, comprising:
- a reservoir portion;
 - a handle portion integrally formed with said reservoir portion; and
 - a spout portion integrally formed with said reservoir portion;
- wherein, said reservoir portion has a punched fill hole that intersects a vertical plane of the handle portion.
32. A method of creating a watering can having a handle, comprising the steps of:
- closing a watering can mold along a seam;
 - blow-molding the watering can in the mold; and
 - punching a hole in the watering can along the seam prior to opening the mold.
33. The method of claim 32, wherein the step of punching comprises punching a hole that intersects a vertical plane of the handle.